

## **REMARKS**

The present amendment is submitted in response to the Office Action mailed June 22, 2011 by the U.S. Patent and Trademark Office in the above-identified application.

### **TELEPHONE INTERVIEW OCTOBER 20, 2011**

The courtesy extended to applicants' representative, Joseph J. Catanzaro, by Examiner Andrew Bainbridge, during a telephone interview conducted on October 20, 2011 is sincerely appreciated.

Prior to conducting the telephone interview, applicant's representative transmitted proposed amendments of the claims by fax to the Examiner. The amendments of Claims 16-23 and new Claims 24 and 25 as submitted herewith are consistent with the claims discussed during the interview and are believed to place this application in condition for allowance. In addition, new Claims 26-33 have been added to recite aspects of the invention to which applicant is believed to be entitled. It is respectfully submitted that new Claims 24-33 are in condition for allowance. Allowance of all of the claims is respectfully requested.

During the aforementioned interviews the outstanding rejections and the prior art cited in the Office Action, particularly US patent nos. 3,233,780 to Cheeley and 4,479,520 to Holben, were fully discussed.

The claims as amended herein are respectfully submitted to be in condition for allowance, as well as being consistent with the issues discussed during the aforementioned telephone interview.

## **THE PRESENT INVENTION**

The present invention is related to disposable (one way), self pressuring liquid drink containers such as party kegs, which often contain a liquid beverage such as beer. In particular, the present invention differs from such pressure regulating systems that are designed and used as systems for a multitude of kegs to be emptied, on premise in a bar or restaurant or the like, charged with gas at (very high) pressure from a standard high pressure gas container such as, for example, is supplied by Air Liquide (France) or Hoekloos (The Netherlands), to be reduced before being fed to a keg. In one respect, this difference is significant, since US Patent No. 4,479,520 to Holben addresses the latter system, which is far removed and distinct from the disposable kegs of the present invention.

## **CLAIMS 21 AND 23**

US Patent No. 3,233,780 to Cheely discloses a beverage container 10 with a cartridge 16 therein, which cartridge is filled with (apparently pressured) CO<sub>2</sub> gas. The cartridge has a valve 24 opening into the space 28 of the beverage container containing the beverage, which may be beer or another CO<sub>2</sub> containing beverage.

The container of Cheely is closed above the valve 24 of the cartridge by a pressure control device, which has a somewhat cup shaped part 52 supported by an edge of the opening in which it is suspended through an upper rim portion 60 of the cup shaped part 52. A lid 58 is fixedly connected to the rim of the cup shaped part 52 and the edge of the opening by a rolling process (indicated by ref. Number 61), as is well known in the art and often used for securing a valve in an aerosol container, as is e.g., shown for the valve 24. The cup shaped part 52 and lid 58 together form a gas tight space or chamber 54 which can be filled with a gas to a desired control pressure through a self closing opening 62, 64. The bottom portion 50 of the cup shaped part 52 acts as a deformable wall part which can encounter the stem of the valve 24, for opening it when the pressure difference over the bottom portion 50 exceeds a predetermined pressure (i.e., the pressure in the space 28 drops below a desired pressure defined by the control pressure in the chamber 54).

In the discussion of Cheely in the Office Action, a number of assumptions are made which may not be entirely correct and, more importantly, which are of little or no relevance to the present application. For example, in the Office Action on page 3 (line 8 - 9) reference is made to the pressure medium container 16 being removable, i.e., referring to column 2, lines 1 - 10 and 60 - 75. The latter part of column 2 only refers to the pressure regulator (chamber 54) which can be filled with gas, whereas the first part (i.e., lines 1 - 10) only defines that the cartridge 16 can either be connected to or supported by the bottom of the container 10. From the description and drawings of Cheely it is clear that the cartridge 16 cannot be removed without damaging the container 10, for example, since the rolling (i.e., crimping) of the edge portions forming the roll 61 is irreversible and known to be such. Otherwise it would not be secure and gas and liquid

tight. Accordingly, there is no disclosure in Cheely that, once fitted, the cartridge can be removed from the container, as suggested in the Office Action.

#### **US PATENT NO. 3,024,800 TO LEWIS**

US Patent No. 7,024,800 to Lewis was cited in the Office Action mailed November 24, 2010. The remarks set forth with respect to US Patent No. 3,024,800 to Lewis in the Amendment filed May 24, 2011 are repeated herein. It is respectfully submitted that Cheely does supply the deficiencies of Lewis. The valve 24 of Cheely is mounted directly in the cartridge instead of in a separate housing screwed into the container. Arguably, the cartridge is less an integral part of the container than it is in Lewis, but still irreversibly connected thereto.

#### **US PATENT NO. 4,479,520 TO HOLBEN**

The Office Action then refers to Holben '571 for the regulator. Holben discloses a coupler adapter for a container and valve. As stated previously, Holben is related to a different field of technology, and in any event, does not supply the deficiencies of Cheely.

In Holben, a coupling arrangement is disclosed for coupling a container 12 comprising high pressure (liquefied) CO<sub>2</sub> to a beverage container for carbonating or pressurizing the beverage. The disclosure is of a standard, traditional tapping set up, as use in restaurants and bars, wherein a gas cylinder containing a relatively large volume of gas at very high pressure is placed spaced apart from containers containing a beverage to be dispensed, connected thereto by at least (but not necessarily limited to) a pressure regulator and gas line (in this case line 18). The volume of pressurised gas is sufficient to be used with a large series of containers and can be

readily exchanged, as is explained in e.g. column 5, lines 4 – 8 of Holben:

“ ... second embodiment. It is also desirable, in selecting workable support structure, that ready access to the cylinder 12 be provided so that it can be easily replaced whenever the carbon dioxide contained therein has been expended. “

Moreover, the entire disclosure of Holben is directed to easy coupling and easy exchangeability of the gas container to the coupler, without a more permanent fixation.

This means that the coupler of Holben (including regulators etc.) is to be used time and again and for that reason cannot be included inside a beverage container as is the case in the present application. This follows for example from the fact that in Holben it is stated that the seals 58, 60 provide for a balancing of high gas pressure in the coupling area, such that no further coupling means are necessary in order to keep the coupling in tact.

In Holben there are at least two valves situated between the gas container and the beverage container as is for example shown in FIG. 4 and 5 as copied hereinbelow. Furthermore, the beverage container is not even shown, and therefore it is unclear whether there is any further valve or regulator between the beverage container and the regulator housing 62 to which the tube 18 is connected. The first valve 36 is contained in a coupling assembly 14 which is screwed into the neck of the gas container, and mounted inside a coupling adapter 34 essential to the claimed invention. The second valve 90 is provided in a pressure regulator assembly 62.

The second valve 90 is controlled by a regulator comprising a membrane 76 engaging a

valve stem 94 and pressurised by at least a spring 86, such that a balance is attained between the pressure inside the chamber 82 and the opposite side of the membrane 76, i.e., provided for by the spring 86 and possibly pressure inside the chamber in which the spring is provided.

In Holben a pressure release provision 108 is provided, between the first valve 36 and the high pressure container 12, such that if the pressure becomes too high in the gas, container 12, gas can escape through the burst disc 112. Should a regulator according to Holben be used in a container according to Cheely, this provision 108 would open into the beverage container, which might be even more risky than having no such provision 108 at all, since it would pressurise the entire container which is not suitable to such pressures.

It is respectfully submitted that a person skilled in the art would not take the regulator of Holben out of its context, nor use the entire device as such, in a device according to Cheely.

In Holben the pressure in the chamber 82 will change depending on gas introduced into the chamber via the valve 90 and a possible pressure drop due to gas flowing out through the line 18 towards the container. The tube (and appendages that will be provided in or connected to the tube, for example, for connecting the tube to the beverage container) will have a restricting effect on the way the pressure in the chamber 82 can follow pressure changes in the beverage container and lessen the accuracy of following such pressure changes. Such disadvantage has been overcome by the present invention, for example, by directly placing the regulating portion of the regulator inside the beverage container and having the actual pressure inside the beverage container acting on the piston, or a membrane, for example, which is operative in a manner similar to the piston.

More importantly in the Office Action, it is stated that it would have been obvious for a

person skilled in the art to combine the teaching of the movable end wall 84 of Holben to the regulator of Cheely, to arrive at the present invention (i.e., to “adjust the gauge pressure of Cheely with a simple turn of an Allen wrench”). In this regard, Cheely relates to a disposable container which is self-regulating and therefore teaches away from orientating on very complex pressure regulating devices which are clearly for repeated and long lasting use, as described in Holden. Moreover, Holben discloses that there should be a reversible coupling of the gas container, which is contrary to the present invention, as well. Furthermore Holben is always directed to on premise applications in which setting of the pressure is done at the CO<sub>2</sub> cylinder which is placed well away from the beverage dispenser.

It is respectfully submitted that Holben and Cheely teach away from the present invention. In particular, the feature of the end cap 84 of Holben with the related structure is intended for a different purpose. That purpose is in particular, a reusable coupling, with a reusable pressure regulator, to be coupled with a sequence of both beverage containers and gas containers.

Claims 22 and 2-5, 8-11 and 19-20 depend from Claim 21 and include all of the recitations of that claim. It is respectfully submitted that these claims are in condition for allowance.

### **CLAIMS 16- 18**

With respect to Claims 16-18 reference is made in the Office Action to Cheely in view of Holben and Guillermo (USP 5,586,571). It is noted that Guillermo is related to faucets, a field which is even further removed from the present invention. In any event, it is respectfully

submitted that a person skilled in the art of self pressurizing beverage containers would not orientate on faucets, which are neither connected to containers, nor self pressurizing, nor have anything to do with carbonated beverages. Moreover, Claim 16 has been amended to recite “connecting means” for connecting the pressure regulating element to the fill opening. Accordingly, one must look to the specification to indemnify the closure tool disclosed for connecting the pressure regulating element.

Claim 18 depends from Claim 16, and has been amended in a similar manner to the amended form of Claim 16.

#### **CLAIMS 26-33**

New Claims 26-33 have been added to recite aspects and features of the invention to which applicant is believed to be entitled.

#### **EXTRA CLAIM FEE AND PETITION FOR EXTENSION OF TIME**

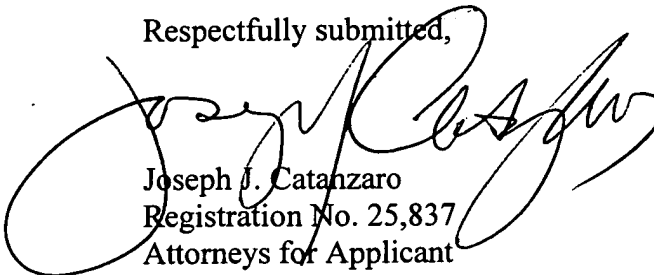
There is being submitted herewith a check in the amount of \$1670.00 representing a fee for six additional claims, and a fee for a two-month extension of time. A Petition for Extension of Time of two months is also submitted herewith.

Please charge any additional fee(s) and credit any overpayments to deposit account no. 01-0035.



Allowance of all of the claims is respectfully requested.

Respectfully submitted,



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